

PATENT ABSTRACTS OF JAPAN

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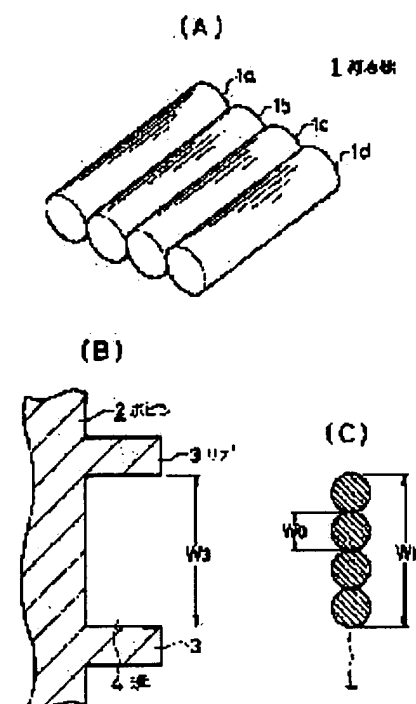
(54) DEFLECTION YOKE

(57)Abstract:

PURPOSE: To improve deflecting efficiency by regulating a deflection coil winding position highly accurately, reducing winding deviation of a deflection coil caused by a bobbin groove position, reducing dispersion of coil distribution of the deflection coil with every deflection yoke, and reducing the possibility of generating corona discharge or the like due to dispersion of spacing of the wound deflection coil.

CONSTITUTION: A deflection coil formed by adhering a plurality of respective insulating covering conductors 1a, 1b and 1c in a plate shape in parallel with each other, is arranged in a groove 4 formed by being partitioned by ribs 3 of a bobbin 2 composed of an insulating material such as plastic installed inside of a truncated cone shape

cylindrical core. A coil winding position is made to be regulated highly accurately, and winding deviation of a deflection coil caused by a bobbin groove position is reduced, and dispersion of coil distribution of the deflection coil with every deflection yoke is reduced. The possibility of generating corona discharge or the like due to dispersion of spacing of the wound deflection coil is reduced.



DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] this invention relates to a deflecting yoke.

[0002]

[Description of the Prior Art] The conventional deflecting yoke is explained with reference to drawing 3. As for the conventional deflecting yoke, in the slot (section) 4 divided and formed with the rib 3 as shown in a truncated-cone tubed core (illustration is omitted) and drawing 3 (B) of the bobbin [the cross section of drawing 3 (A) consists of the couple of the semicircle-like bobbin 2] which consists of insulating materials, such as plastics attached in the incore side, the saddle shape volume of the deflecting coil (level or vertical deflection coil) which consists of the single track 5 by which pre-insulation was carried out is carried out, and it is. The slot 4 of this bobbin 2 can specify the winding position of a coil, so that this is narrow, and it can make distribution precision of coil winding high.

[0003] In addition, the toroidal volume of the deflecting coil (a perpendicular or horizontal deflection coil) is simultaneously carried out to the core of this deflecting yoke.

[0004]

[Problem(s) to be Solved by the Invention] Although the deflecting coil of dozens turns is wound around Mizouchi divided with the rib of a bobbin in fact by the conventional deflecting yoke mentioned above Since the deflecting coil is single track, the winding position is uncontrollable with high precision. Depending on the position of the slot on the bobbin, a deflecting coil inclines, and may be wound, and a coil distribution of a deflecting coil may vary for every deflecting yoke, and the judgment of the quality of the coil of a deflecting coil to a bobbin was difficult. Furthermore, when dispersion was in the conductor spacing of the deflecting coil around which the bobbin was looped, possibility that corona discharge and a ringing will occur was high.

[0005] In the deflecting yoke which the saddle shape volume of the deflecting coil is carried out, and grows into the bobbin with which this invention was attached inside truncated-cone tubed a core and a core in view of this point The winding position of a deflecting coil can be regulated with high precision, and there are few bias of winding of the deflecting coil by the position of the slot on the bobbin. There is little dispersion in a coil distribution of the deflecting coil for every deflecting yoke. moreover The judgment of the quality of the coil of a deflecting coil to a bobbin is easy, and tends to propose the low thing of possibility that the corona discharge by dispersion in the conductor spacing of the deflecting coil around which the bobbin was looped, and a ringing will occur.

[0006]

[Means for Solving the Problem] In the deflecting yoke which the saddle shape volume of the deflecting coil is carried out, and changes in each slot 4 of the bobbin 2 with which the deflecting yoke by this invention was attached inside truncated-cone tubed a core and a core, the deflecting coil consists of the compound line 1 by which two or more lead wire 1a, 1b, 1c, and 1d was mutually united with plate-like in parallel.

[0007]

[Function] Since a deflecting coil consists of the compound line 1 by which two or more lead wire 1a, 1b, 1c, and 1d was mutually united with plate-like in parallel according to this deflecting yoke, dispersion in the physical relationship in the meantime by which a lead wire [in the same compound line 1 / 1a, 1b, 1c, and 1d] interval is held at abbreviation regularity, and a bias change few.

[0008]

[Example] Below, with reference to drawing 1, the example (1) of this invention is explained in detail. The deflecting yoke of an example like the conventional deflecting yoke of drawing 3 A truncated-cone tubed core (illustration is omitted), In the slot (section) 4 divided and formed with the rib 3 of the bobbin [the cross section of drawing 3 (A) consists of the couple of the semicircle-like bobbin 2] which consists of insulating materials, such as plastics attached inside the core Two or more lead wire (4 [for example,]) (for example, single track which consists of copper) 1a, 1b, 1c, and 1d by which pre-

insulation was each carried out to plate-like in parallel mutually For example, adhesion, Or only in one layer, the saddle shape volume of the deflecting coil (level or vertical deflection coil) which consists of the compound line 1 unified by one fabrication of pre-insulation is carried out (more than two-layer is possible), and it is.

[0009] In addition, the toroidal volume of the deflecting coil (a perpendicular or horizontal deflection coil) is simultaneously carried out to the core of this deflecting yoke.

[0010] By comparing with the size of the bobbin 2 of a semicircle the size of the cross section of the slot 4 formed in the bobbin 2 with the rib 3 by the actual thing, since it is quite small, it can be considered that the cross-section configuration of a slot 4 is an abbreviation rectangle. this time -- width-of-face W_3 of a slot 4 -- abbreviation -- it is regulated as follows Here, it is a lead wire [with which W_1 constitutes the width of face of the compound line 1, and W_0 constitutes the compound line 1 / 1a 1b, 1c, and 1d] diameter.

$W_1 < W_3 < W_1 + W_0$ [0011] Next, other examples of this invention are explained with reference to drawing 2. This example (2) is one layer, two-layer, and the case where it loops around so that a three-layer laminating may be carried out, respectively about the deflecting coil which consists of the compound line 1 in the slot 4 where bobbins 2 differ. According to this, each lead-wire 1a of the one layer or the compound line 1 by which the laminating was carried out in the slot 4 of a bobbin 2, A winding position (1b, 1c, and 1d) can be regulated with high precision, and there are few bias of winding of the deflecting coil by the position of the slot on the bobbin. It turns out that there is little dispersion in a coil distribution of the deflecting coil for every deflecting yoke, and the judgment of as opposed to a bobbin 2 moreover of the quality of the coil of a deflecting coil is easy, and possibility that the corona discharge by dispersion in the conductor spacing of the deflecting coil around which the bobbin 2 was looped, and a ringing will occur is low.

[0012]

[Effect of the Invention] In the deflecting yoke from which according to the above-mentioned **** this invention the saddle shape volume of the deflecting coil is carried out, and it changes to the bobbin attached inside truncated-cone tubed a core and a core The winding position of a deflecting coil can be regulated with high precision, and there are few bias of winding of the deflecting coil by the position of the slot on the bobbin. There is little dispersion in a coil distribution of the deflecting coil for every deflecting yoke. moreover The judgment of the quality of the coil of a deflecting coil to a bobbin is easy, and can obtain the low thing of possibility that the corona discharge by dispersion in the conductor spacing of the deflecting coil around which the bobbin was looped, and a ringing will occur. Moreover, it changes that the miniaturization of a deflecting yoke and improvement in deviation efficiency are possible.

$$W_1 < W_3 < W_1 + W_0$$

$$\begin{array}{ll} 1 < W_3 < 1.5 & \text{if just 2 wires} \\ & 1.25 \quad \text{if 4 " " } \end{array}$$